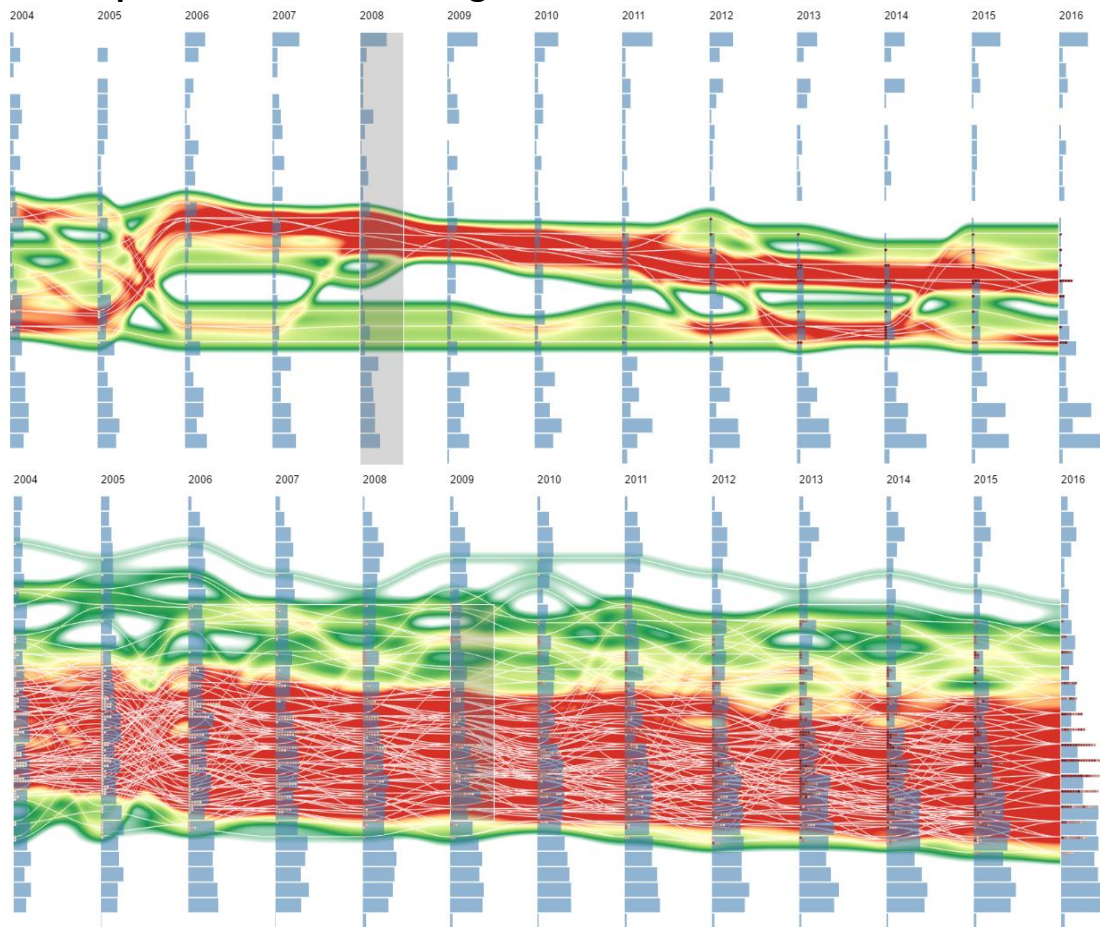


Weekly Report 2016.01.09-2017.01.15

Progress:

1. Temporal Ensemble Rankings



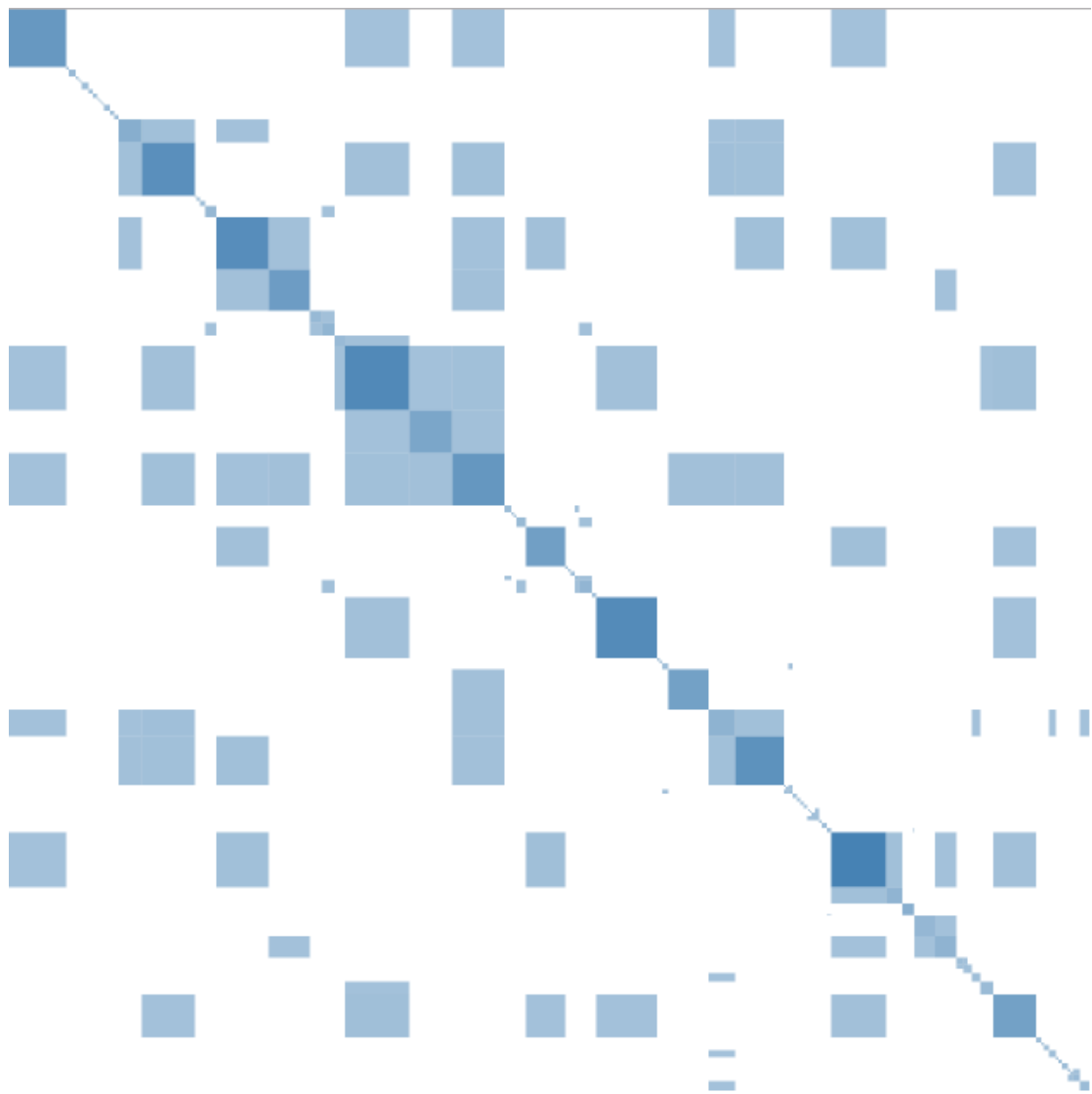
The heatmap is finished.

Dongming almost finished the interactions in the cluster view.

2. TCP Tree

3. Anomaly Detection in Dynamic Graphs

This week I have finished the structure of the database, backend, and the frontend. The aggregation of then co-author network during 2012-2015 is shown below.



Jiacheng has finished the basic interaction of splitting the matrix sequence.

I'm considering the design of the energy function for the tree cutting. The aim of the tree cut include three aspects, first, maintain the original community structure, second, fine-grained and coarse-grained nodes should be separated, and third, fine-grained and fine-grained nodes should be separated.

Therefore, I think the energy of one cluster node should fulfill the following requirements:

1. The energy should be lower when the node has more fine-grained leaves. This ensures the fine-grained and coarse-grained nodes are separated.
2. The energy should be larger when the cluster node is further from the

fine-grained nodes. This ensures the fine-grained nodes are separated from each other.

3. For cluster node without fine-grained leaves, the nearer distance it has to the root, the lower energy it has. This ensures the coarse-grained nodes won't be separated.

Plan:

1. Temporal Ensemble Ranking Data

Implement the heatmap and the interactions in the cluster view.

2. Anomaly Detection in Dynamic Graphs